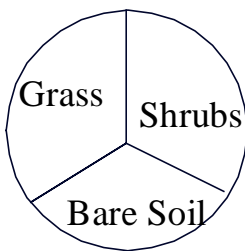




# THE COVEY HEADQUARTERS

Volume 10 Issue 4 Winter 2011

This newsletter is aimed at cooperators and sports-people in Missouri to provide information on restoring quail. This is a joint effort of the Missouri Department of Conservation, USDA-Natural Resources Conservation Service, and University of Missouri Extension. If you would like to be removed from this mailing list or have suggestions for future articles please contact [jeff.powelson@mdc.mo.gov](mailto:jeff.powelson@mdc.mo.gov) or 816-232-6555 x122 or write to the address shown.



The name of this newsletter is taken from an old concept.....that a quail covey operates from a headquarters (shrubby cover). If the rest of the covey's habitat needs are nearby, a covey should be present. We are encouraging landowners to manage their quail habitat according to this concept. Use **shrubs** as the cornerstone for your quail management efforts. Manage for a **diverse grass, broadleaf weed and legume mixture and provide bare ground** with row crops, food plots or light disking **right next to** the shrubby area.

## Quail Forecast Has Bright Spots

Results of Missouri's annual statewide quail population survey give quail hunters little to rejoice about. However, bobwhites are holding their own in some areas and making gains in others where landowners and the Missouri Department of Conservation (MDC) have made quail management a priority.

One way the agency tracks quail is through roadside surveys. Each August, conservation agents count quail along 30-mile routes in 110 of Missouri's 114 counties. Only Clay, Jackson, St. Louis and St. Charles counties are not surveyed. The 2011 roadside surveys recorded an average of 1.4 quail per 30-mile route. That is 36 percent lower than last year and 56 percent below the average over the past 10 years. Results from the roadside survey are consistent with other measures that document a continuing, long-term decline in bobwhite numbers statewide and throughout most of their range.

Agricultural Wildlife Ecologist Beth Emmerich, who analyzes bobwhite quail population data gathered by MDC field staff, says that while Missouri's quail picture is not rosy, it isn't as bad as the roadside survey numbers make it seem. She notes that quail populations vary significantly in different parts of the state and even locally. Some of those variations reflect differences in weather patterns. Others show where MDC and private conservationists have been at work.

"Quail counts in northwest Missouri are up 63-percent compared to last year," said Emmerich, "while counts in the Mississippi lowlands, which had severe and extended flooding this year, show a 92-percent decline over the same period. Looking at the roadside survey numbers, you might think it wasn't worth getting your dog out of its pen, but that is absolutely not true."

Emmerich said roadside quail surveys occur on the same routes every year. They document quail population changes in those areas over time. However, they don't take into account quail population trends in areas where work is underway to create quality quail habitat. That is why MDC conducts fall covey counts at 19 conservation areas (CAs) that have been designated Quail Emphasis Areas.

Starting in mid-October each fall, MDC biologists visit randomly selected plots on Quail Emphasis Areas early in the morning and listen for calling quail. They record the location of each covey in earshot. They

flush some of the coveys to get an idea of how many birds are in each. Feeding these data into statistical population models allows biologists to estimate area quail populations. Covey counts are a practical way to evaluate the effectiveness of habitat management efforts.

Emmerich said results from this year's covey counts are not all in yet, and she won't finish analyzing those data until next year. But early results already document some quail-management success stories. They also illustrate how weather affects quail populations.

On Oct. 11, Resource Assistant Chez Kleeman flushed a covey of quail at Bois D'Arc CA in Greene County. Some of the birds were sparrow-sized and barely able to fly. Quail that successfully raise early clutches sometimes nest again and raise a second brood that year. Seeing small birds in October indicates Bois D'Arc's quail may have "double-clutched." Backing this up are reports from Bois D'Arc staff that quail numbers are up this year.

According to Private Land Conservationist Mike Gaskins, landowners in Dent and Shannon counties also have reported are seeing late-hatched quail and turkey broods in recent weeks.

Resource Forester Phil Sneed, who manages Poosey CA in Livingston County, also reported seeing very young quail in some covey counts, so portions of northern Missouri have experienced late quail nesting success as well.

Sneed also reported hearing coveys in new locations. That is a sign of good habitat conditions. Average covey size on Poosey was 11 to 12 quail, with two 20-bird coveys.

Dave Hoover, manager of the Seat CA in Worth County, reported covey counts slightly better than the last year. However, he cautions that quail numbers remain low there, due to extremely difficult weather conditions that plagued ground-nesting birds from 2007 through 2010.

Staff at Whetstone Creek CA in Callaway County and William White Memorial CA in Lincoln County reported covey counts 50 percent smaller than in 2010. Heavy snow that lingered throughout much of last winter in parts of central Missouri may have cut into this and some other local populations.

Private Land Conservationist Nathan Mechlin called 2011 a good quail-production year for Clinton, Caldwell and Daviess counties. He said both quail and turkey brood sightings are up from previous years. Those results are spotty, however, and landowners in some areas report seeing very few birds.

Each year, MDC makes habitat improvements on more than 75,000 acres on CAs. These improvements benefit quail and other wildlife that share the bobwhite's habitat needs. Roadside quail counts occur along routes established before this work began and are not designed to measure the success of quail management on CAs.

Just as the roadside survey fails to capture information about Quail Emphasis Areas, it also does not reflect progress made on private land. Emmerich said hundreds of Missourians are working to restore quail habitat. Some have organized cooperatives to work with MDC and other agencies in dozens of Quail Focus Areas around the state.

"The Conservation Department is making a significant investment in quail management on private land each year through cost-share and landowner incentive programs," said Emmerich. "One partnership we are especially proud of is the Habitat Challenge Grants program. This summer, the Department awarded a total of \$133,000 in funding to Quail Forever, the Quail and Upland Wildlife Federation, Quail Unlimited and the National Wild Turkey Federation. Through habitat challenge grants, each of these conservation organizations provides matching funds to help landowners complete habitat work on their land."

Emmerich said MDC's Landowner Assistance Program channels more than \$1 million a year into habitat enhancements that benefit quail and other wildlife that share the bobwhite's habitat needs. The agency also promotes federal farm bill programs such as the Conservation Reserve Program, which funds quail-friendly habitat work.

For locations and additional information about MDC's Quail Emphasis Areas, visit [mdc.mo.gov/node/3333](http://mdc.mo.gov/node/3333). For more information about Quail Opportunity Areas and quail management, visit [mdc.mo.gov/node/12606](http://mdc.mo.gov/node/12606).

## **Patience, Passion, Persistence and Perseverance**

Being a relatively new Andrew County landowner my desire to have upland game populations on my farm large enough to hunt was a real aspiration. Those aspirations were sometimes hindered by cost, time constraints and weather. Despite these frustrations if you have a good plan, do some research on the species that you are targeting on your property and what I call the four P's - patience, passion, persistence and perseverance you can be successful in establishing a habitat that will support upland game. Without the four P's to making your management plan work, you could be in for some disappointments that you weren't expecting. Here is where I have been and where I am now in developing an upland bird population big enough to hunt.

What a rewarding year in wildlife management I have had on my farm! I am finally feeling that after years of planning and implementing all of the habitat recommendations, I am starting to see the fruits of our labor. Almost 5 years ago I was thinking about what my daughters, wife and I were going to be doing to improve habitat on the farm. It's been what seems to be a long time coming but after four years of work I have seen quail, pheasant, turkey and deer numbers start to improve. From seeing no quail or a half dozen, I now see up to three coveys. From seeing a rooster pheasant a few times a year to seeing 12 to 15 birds at a time, weekly. We have good turkey numbers and have had opportunities to hunt terrific deer.

My project started with consulting with our Private Lands Conservationist from the Missouri Department of Conservation. We toured the farm and decided that we had potential to make the farm better for wildlife. Jeff drew up some plans and we did some tweaking. My first endeavor was to get more high quality food sources worked into the project. I planted approximately 3 acres of grain crops and almost 4 acres of high quality legumes like alfalfa, ladino clover and red clover. Since then we have tried to add something new to the project each year. Projects have varied from adding additional food plots, edge feathering and spraying fescue and unwanted grasses to increase the wildflowers and annual weeds that benefit upland game. Working with the fellow that manages my hay, we planted alfalfa and he takes the first cutting at a safe time after quail, pheasants and turkeys have nested. If done properly in good years he is still able to get three cuttings. We are now up to about 8 acres of sorghum crops, 3 acres of wheat and 7 acres of high quality legume food plots and approximately 15 acres of alfalfa we bale for hay. This is all mixed in with about 60 acres of warm season grasses and 30 acres of mixed grass CRP.

We do not just manage the open areas but the woodlots as well. We continue to edge feather and are looking at timber stand improvement to make the woods more wildlife friendly. With the help of my youngest daughter we have vowed to restore hedge rows on the farm. Some people may cringe at this but we have established over 3/4 of a mile of hedge rows around the perimeter of the fields of our farm. We have also planted one acre of walnut trees and are in the process of putting in windbreaks and shelter belts that consist of evergreen plantings and woody shrubs that will also be beneficial to upland game birds.

Don't forget to pray for mild winters and good spring weather! For several years in a row we have had hard winters and very wet springs. Although this spring was wet I believe in our area we were fortunate to get or not get the rains at the right time as I was able to see broods of chicks around the farm. This is the first year that I saw more than just young turkeys. I believe that some of the management practices that we put into place are the reason for these sightings. I believe that ground nesting birds need woody cover to nest and rear their broods. They need loafing areas and areas of vegetative cover with bare

ground where they can get protein rich insects and quality food. We have tried to supplement these habitat types into the farm plan. Having these areas in place give the birds many options for nesting cover and a safe haven from predators and the elements.

I believe that we have also helped the bird population by trapping and allowing coon hunters to hunt our property. We set goals each year on how many predators we want to catch. Target species are raccoons, opossums, skunks, bobcats, coyotes and fox.

My daughter is in the Agriculture program here in town and she uses this for her FFA Supervised Agriculture Education Program. She has learned how to plant and maintain field crops, forages, warm season grasses and trees. She traps the predators and sells hides for additional income. What valuable lessons for my daughter who loves the outdoors and wildlife. In a time when we need to be taking kids into the outdoors, and teaching them about all of the opportunities in the outdoors I couldn't have asked for a better way to get her involved. I think she has developed a strong appreciation for wildlife and it has also given us the opportunity to spend valuable quality time together.

I have found that this is not an exact science, but by keeping the four P's – patience, passion, persistence and perseverance in your back pocket you too may see success in your future. For more information contact Jeff Powelson at 816-232-6555 x122.

## **Weather Gives Endangered Prairie Chickens a Nesting Boost**

Missouri's endangered prairie chickens got a major lift this summer from dry weather in June and continued refinement in how native grasslands are managed.

The Missouri population dipped to a critically low number of about 100 prairie chickens sighted on mating grounds this spring, in a state that once had hundreds of thousands. However, favorable weather helped hens on MDC-managed prairies hatch and rear their young this summer.

"We had an apparent nesting success of almost 80 percent, which is phenomenal," said Max Alleger, grassland bird coordinator for the Missouri Department of Conservation (MDC). "Most studies show that nesting success in stable populations is usually 50 percent."

Habitat loss since the 1800s reduced the state's prairie-chicken numbers to dozens in scattered flocks as this century began. Starting in 2007, cool and rainy weather caused severe chick mortality during nesting and brood-rearing seasons, causing problems for a struggling species where adults have an average life span of two to three years due to predators and natural mortality.

In 2008, MDC crews began trapping prairie chickens in Kansas and releasing them at the Wah'Kon-Tah Prairie near El Dorado Springs. A small native flock survived at the Taberville Prairie Conservation Area to the north, but no prairie chickens remained at Wah'Kon-Tah as the translocation project began. The Kansas birds began a new flock, but torrential rains and unseasonably cool temperatures limited nesting success each spring through 2010. Then relatively dry weather this June coupled with good variety in nesting and feeding habitat brought a welcome surge in brood counts and the number of chicks reaching a self-reliant size by summer's end.

MDC crews located 29 prairie-chicken nests this summer at Wah'Kon-Tah and Taberville prairies in St. Clair County. Of those, they determined that hens in 23 nests hatched broods. Biologists and students from the University of Missouri-Columbia directly observed 52 chicks during field work.

"It's encouraging," Alleger said, "and we've seen the same thing with turkeys and quail. I think the dry weather helped all the ground-nesting birds."

Three broods were raised by hens hatched at Wah'Kon-Tah since 2008. Hens from translocations in earlier years reared eight broods, and 16 hens translocated from Kansas this spring produced young.

Crews are able to monitor prairie chickens because many are outfitted with small radio transmitters. Biologists track them in the fields and chart on maps what habitat they use for feeding, nesting, loafing and roosting.

“The birds have shown a real preference for cattle-grazed areas, both on our native prairies and on neighboring private pastures as well,” Alleger said.

Prairie chickens are fast flyers but they spend most of their time walking, running, feeding and resting on the ground. Grazing opens up paths and open areas that are easy for prairie chickens to move about amid grasses and wildflowers, and they are easier places for small chicks to catch bugs while feeding.

But the ground dwellers also need dense cover for nesting or to escape from predators such as hawks. The public prairies are being managed in 40-acre patches so that grazed, burned and undisturbed areas are side by side, offering what biologists call a soft edge.

“The chicks need to be able to get out in the sun in the morning and let the dew dry off,” Alleger said. “But when the hawks fly over, they also need places to hide.”

A five-year prairie-chicken restoration program at Wah’Kon-Tah with translocated Kansas birds, radio telemetry monitoring and habitat studies concludes in 2012.

This summer’s brood success is a hopeful sign that with moderate weather and habitat management such as grazing, the iconic symbol of grassland birds can rebound there and be restored elsewhere.

“If we can get two or three years in a row with drier weather,” he said, “it could make all the difference in the success of the project.”

## **Inter-seeding Legumes into Existing Forages**

**Jim Humphrey, Livestock Specialist, University of Missouri-Extension, Savannah, MO**

Many forage areas in Northwest Missouri have adequate amounts of grasses, but several lack quantity and diversity of legumes. Inter-seeding legumes can be done for several reasons including improving forage quality and availability for your livestock. Additionally, inter-seeding legumes into existing stands of forages including CRP can be beneficial to wildlife.

The first step in establishing legumes into existing forage stands is to take a good set of soil samples that adequately represent the area you are planning to inter-seed legumes. These samples can be analyzed for around \$15 per sample at commercial labs or at the University of Missouri. Make sure you indicate on the soil test information sheet you are establishing legumes. Once soil sample results are obtained, soil pH and phosphorous levels are the most important, apply the necessary lime and fertilizers per the recommendations. Once soils are limed and fertilized, you are ready to seed your legumes.

Be prepared to seed in a timely manner to minimize weed competition and ensure legume seedlings have the best chance to get adequately established. Usually the best time to inter-seed legumes is in late winter, for our area it is usually during the month of February. When possible get your legume seed from a certified seed representative. This should ensure varietal purity and proven performance. Legumes can be inter-seeded easier in bunch grasses such as orchardgrass, timothy, and some of your warm-season grasses. Minimum seeding rates for broadcasting your legume seed on top of undisturbed soils are: alfalfa, lespedeza 10 lbs/acre and red clover 8 lbs/acre.

If you are interested in learning more or locating a soil probe for taking representative core soil samples contact the University of Missouri Extension Center in your area or Jim Humphrey, at the Andrew County Extension Center, 816-324-314 or [humphreyjr@missouri.edu](mailto:humphreyjr@missouri.edu) Check out the following jobsheet for more

information - [http://www.mo.nrcs.usda.gov/technical/forms/out/wildlife\\_js/May%202011/JS-BIOL-20NativeForbandNon-nativeLegumeInterseeding\\_May2011.pdf](http://www.mo.nrcs.usda.gov/technical/forms/out/wildlife_js/May%202011/JS-BIOL-20NativeForbandNon-nativeLegumeInterseeding_May2011.pdf)

## Covey Headquarter Calendar

### December

Burn native warm-season grass fields to set back the grass and encourage annual weeds.

Disk your CRP acres this month to promote ragweed.

Don't delay - order your Covey Headquarter shrubs (shrub dogwood, wild plum, blackberry) this month - <http://extra.mdc.mo.gov/cgi-bin/mdcdevpub/apps/seedlings/search.cgi?record=all>

Drop honeylocust and hedge trees in fencelines for quail covey headquarters. Don't forget to spray the stumps.

Dormant seed native warm season grasses and wildflowers

EQUIP and WHIP ranking period. Visit your USDA Service Center for more information.

### January

Stop wasting money on inputs on low-yield cropland edges. Visit your local FSA office and enroll these areas in CRP practice CP33.

Burn your CRP acres this month to reduce grass competition and increase wildflower abundance.

Dormant seed CRP wildflower pollinator habitat.

### February

Interseed wildflowers/legumes in conjunction with your CRP management practices. Cost share is available from USDA.

Broadcast annual lespedeza over recently burned areas and firelines.

Create covey headquarters by dropping large trees along fencerows and leave them where they fall.

Finish burning your native warm-season grass acres this month. For quail, DO NOT burn rank stands of native grass after March 15.

Cut, Cut, Cut – continue your edge feathering projects, this will result in cover at ground level for your quail.

## KC Plucked to Host Pheasants Forever's National Pheasant Fest & Quail Classic in '12

*Coming to Kansas City Convention Center February 17-19*

For the first time, the nation's biggest event for pheasant and quail hunters and bird dog enthusiasts is coming to Kansas City. Pheasants Forever's [National Pheasant Fest & Quail Classic](#) will be held February 17, 18 & 19, 2012, at the [Kansas City Convention Center](#) in downtown Kansas City, Missouri. The event will be presented by Cabela's, the World's Foremost Outfitter.

The annual convention, outdoor tradeshow and dog showcase hosted by the country's leading upland conservation organizations, [Pheasants Forever](#) and [Quail Forever](#), National Pheasant Fest has topped the 20,000 attendance mark each of the last six events. The Quail Classic portion of the 2012 event will be a first as well, representing the strong tradition of bobwhite quail hunting and conservation found in Kansas, Missouri and across the Great Plains and southeast United States. Both the Kansas Department of Wildlife and Parks and the Missouri Department of Conservation will be participating in the event.

This year's Quail Stage will provide seminars and discussion on quail recovery efforts that you can participate in on your farm. The inaugural Quail Conservation Forum will host a panel of quail greats from Georgia to Texas in a panel discussion on the plight of the bobwhite. Landowners will have the opportunity to have wildlife farm plan developed at the Habitat Help Desk, which will be staffed by Quail Forever Farm Bill Wildlife Biologists.





All things bird dog-related have been the biggest attractions at previous National Pheasant Fest events, and that's expected to be the case at the inaugural appearance in Kansas City. Upwards of 40 different sporting dog breeds will be represented, dog training seminars will occur throughout the 3-day weekend, and attendees will have the opportunity to meet face-to-face with breeders, trainers, and dog kennel and club representatives. A "Youth Village" is another popular show attraction, where kids and teens can participate in archery and air rifle ranges, a casting booth, laser shot and more. Missouri's newest National Youth Leadership Council Representative, Bailey Decker, from the Kansas City Area, will be leading the charge at the youth village.

Kansas and Missouri are home to a combined 47 local Pheasants Forever chapters and 34 Quail Forever chapters. With more than 10,000 Pheasants Forever and/or Quail Forever members in the two states, Howard Vincent, Pheasants Forever, Inc.'s National President and CEO, says it's time to bring the organization's premiere event to Kansas City. "Kansas is one of the elite states for pheasant hunting and Missouri has positioned itself as a clear leader in efforts to restore bobwhite quail populations," Vincent said, "Kansas City is the perfect meeting place to have fun celebrating both great game birds."

For additional inquiries regarding National Pheasant Fest & Quail Classic 2012 please check out the website at [www.quailclassic.org](http://www.quailclassic.org)

## **MDC celebrating 75 years of conservation in Missouri**

The Missouri Department of Conservation (MDC) is celebrating its 75<sup>th</sup> anniversary through October 2012. Throughout the next year, the MDC-produced magazine, *Missouri Conservationist*, will highlight the Show-Me-State's unique, citizen-led conservation story, successful conservation partnerships and programs and future challenges. To read the *Missouri Conservationist* online or to subscribe, free to Missourians, visit <http://mdc.mo.gov/conmag>. MDC will also host anniversary events throughout the coming year at nature centers and other locations throughout the state. To follow anniversary activities, visit <http://mdc.mo.gov/about-us/get-know-us/75th-anniversary>.

"Conservation in Missouri is unique," said MDC Director Robert Ziehmer, "unique in its history, unique in the way it derives its authority and funding from citizens, and unique in the passion, partnerships and commitment of Missourians to perpetuate this legacy."

Ziehmer added that Missourians have achieved some amazing results. "Working together, the Department and citizens have restored and conserved dozens of fish and wildlife species," he said. "We have ensured that Missouri is a great place to hunt and fish, transformed forestry into a sustainable industry, created a system devoted to serving both rural and urban private landowners, invested in the hearts of major urban areas to encourage participation in the outdoors, developed an accessible network of public lands and facilities, and partnered the entire way with citizens and communities throughout the state."

The need to protect, conserve and sustain Missouri's fish, forest and wildlife resources began well before the creation of the MDC. During their expedition in the early 1800s through what is now known as Missouri, explorers Lewis & Clark described the stunning abundance and variety of fish, forests and wildlife. However, by the 1860s, our state's fish, forest and wildlife resources were depleted through unchecked hunting, fishing, logging and burning of land. By the 1930s, the existing Missouri Department of Game was underfunded and largely a token gesture weakened by powerful interests.

These circumstances set the stage for citizen-led efforts to begin the restoration of Missouri's fish, forest and wildlife resources 75 years ago. In September 1935, Missouri sportsmen met and formed the Restoration and Conservation Federation of Missouri. They drafted an amendment to the Missouri Constitution aimed at creating an apolitical conservation agency and set to work getting it passed. On Nov. 3, 1936, voters approved Amendment 4 to the Missouri Constitution, creating the Conservation Commission and the apolitical, science-based conservation agency with authority over fish, forests and wildlife. On July 1, 1937, Amendment 4 took effect.

"Not in their wildest imaginations could those early sportsmen have imagined what has been achieved," said Dave Murphy, executive director of the Conservation Federation of Missouri. "On the same landscape, at the same time that our human population has doubled, we've seen the restoration of wild turkey, deer, geese, river otters, raccoons, black bass, elk and so much more."

In 1970, the Conservation Federation of Missouri led an effort to establish dedicated funding for conservation through the Design for Conservation. Passed in 1976, it included a pledge to obtain land for recreation, forestry and protection of critical habitat, increased services to the public in the areas of wildlife and forest conservation, the creation of conservation nature centers throughout Missouri, and funding through the 1/8-of 1-percent conservation sales tax.

This sales-tax revenue makes up 58 percent of MDC's annual operating budget with no funding coming from the state's general revenue. Permit revenues from fishing, hunting and trapping account for approximately 20 percent of the Department's annual revenue. MDC also receives 14 percent of its funding in the form of federal reimbursements from sources including the U.S. Fish and Wildlife Service's Wildlife and Sport Fish Restoration programs.

Efforts to ensure healthy forests, abundant fish and wildlife and productive waters provide benefits to citizens' quality of life and the state economy. Today, hunting, fishing and wildlife watching, along with forest industries support about 95,000 Missouri jobs and generate more than \$11.4 billion annually to state and local economies.

The Department is led by the Conservation Commission, which consists of four commissioners appointed by the Governor for six-year unpaid terms. Current Commissioners are: Don R. Johnson of Festus; James T. Blair, IV, of St. Louis; Don C. Bedell of Sikeston; and Becky L. Plattner of Grand Pass.

UNIVERSITY OF MISSOURI  
 Extension

 NRCS Natural Resources  
Conservation Service

The Covey Headquarters Newsletter  
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